

TWO NEW GYPSEOUS SPECIES OF *SENECIO* (ASTERACEAE) FROM NORTH CENTRAL MEXICO

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ABSTRACT

Two new species of *Senecio* from northcentral México are described: *S. claryae* B.L. Turner, from the Sierra de la Paila, Coahuila, and *S. powellii* B.L. Turner, from Nuevo León. Both are believed to be gypsophilic endemics in the areas concerned, and both belong to the *Suffruticosa* species-complex of *Senecio* where they relate to *S. flaccidus*. A map showing the distribution of this complex in México is provided.

KEY WORDS: Asteraceae, *Senecio*, México

Preparation of a treatment of *Senecio* and related genera for México by Barkley (in prep.) and myself (in prep.) has prompted the present contribution.

Senecio claryae B.L. Turner, *sp. nov.* TYPE: MEXICO. Coahuila: SW quadrant of Sierra de la Paila (= Canyon Corazón del Toro of older maps), northern exposed gypsum slope of Cerro Alto (ca. 25°52' N, 101°41' W), 1450 m, 26 Jul 1992, *Thomas F. Patterson 7260*, with K. Clary & B.L. Turner (HOLOTYPE: TEX; Isotype: MEXU).

Senecioni flaccido Less. similis sed foliis plerumque simplicibus linearibusque, caulibus simplicibus sparsim ramosisque 1-3 capitula ad apices ferentibus differt.

Stiffly erect brittle-stemmed minutely tomentulose or glabrate perennial herbs 30-50 cm high. Leaves gradually reduced upwards, simple, linear (1 or 2 short linear lobes occasionally occur), minutely tomentulose or glabrate, mostly 30-50 mm long, ca. 1 mm wide. Heads 1-3, terminal, the ultimate peduncles mostly 2-10 cm long. Involucres 5-7 mm high, 8-12 mm wide (pressed),

the bracts ca. 21, linear-lanceolate, the apices mostly with dark blotches and pubescent tufts. Ray florets 5-8, pistillate, the ligules yellow, 4-8 mm long, 2-3 mm wide. Disk florets yellow, numerous (50+), the corollas ca. 5.5 mm long, tubular, glabrous, the lobes ca. 0.4 mm long. Achenes (immature) columnar, 3-4 mm long, densely appressed white-pubescent, the pappus of numerous white bristles ca. 6 mm long.

ADDITIONAL SPECIMEN EXAMINED: MEXICO. Coahuila: Sierra de la Paila at Mina La Abundancia (25°54'40" N, 101°38' W), 1800-1900 m, 31 Mar 1973, *Johnston et al. 10515C* (LL, the label indicates this to be an unicate).

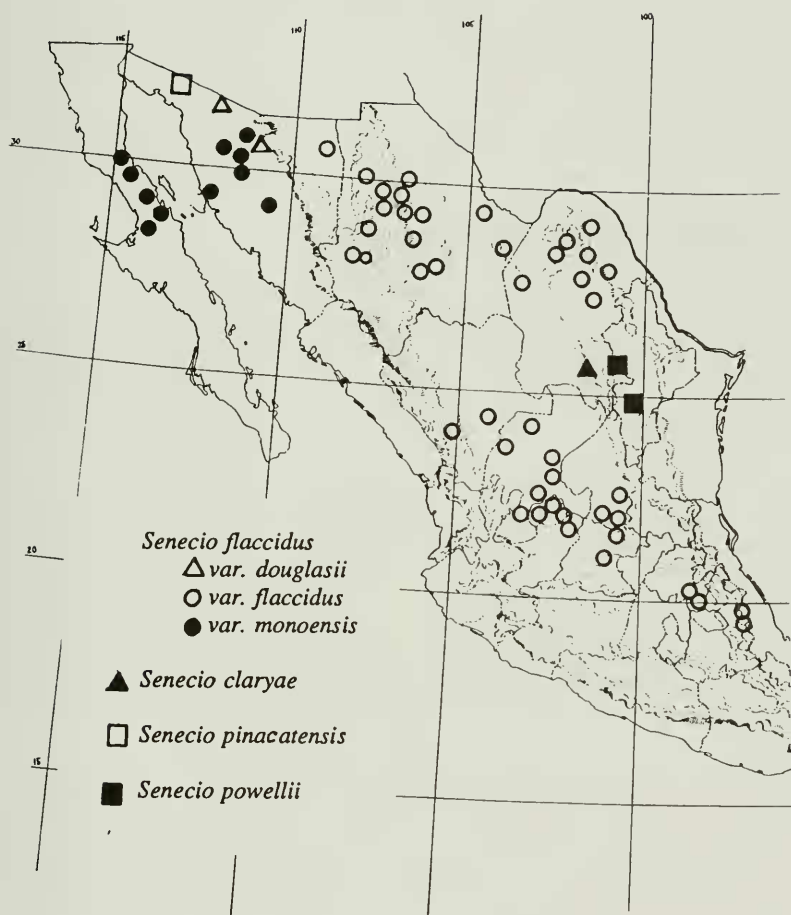
This taxon is known by only two collections, both obtained from gypseous outcrops of the Sierra de la Paila. In Turner & Barkley's (1990) account of *Senecio flaccidus* in México, the paratype was mapped as belonging to the latter species, which it superficially resembles. *Senecio claryae* appears to be only one of several localized gypsum endemics of the Sierra de la Paila, co-occurring with *Nerisyrenia baconiana* B.L. Turner (1993), and yet other taxa. It should be added that *S. flaccidus* is nowhere to be found in the Sierra de la Paila, either on the gypseous soils concerned, or in surrounding regions.

It is a pleasure to name this species for Ms. Karen Clary, field companion on this trip who zigzagged along with T.F. Patterson across ca. 1.5 km of *Agave lechugilla* Torrey, so as to obtain type material. Karen is a terminal year doctoral student at the University of Texas working on the difficult genus *Yucca*. It should be noted I have also eponymized her companion on this sortie with a *Senecio*, *S. pattersonii* B.L. Turner, a species from Nuevo León, México. Both are deserving recipients of such temporary honors (thinking universally) in that both are field systematists of the highest dedication and grit. We need more such; a disappearing breed.

Senecio powellii B.L. Turner, *sp. nov.* TYPE: MEXICO. Nuevo León: ca. 8 mi NNE of Espinozo along dirt road (ca. 26°21' N, 101°05' W), sandy gypsum soils, 22 May 1972, *A.M. Powell & B.L. Turner 2312* (HOLOTYPE: TEX).

Senecioni flaccido Less. similis sed differt plantis annuis herbaeis glabrisque caulibus primariis strictis ramis secundariis erecto-patentibus (vs. perennibus fruticulosis tomentulosisque in habitu erectis vel porrectis).

Stiffly erect tap-rooted annuals 15-50 cm high. Stems glabrous, striate, branched from ca. the middle or above, the branches ascending, forming angles of 45° or less with the primary shoot. Leaves glabrous, gradually reduced upwards, those at mid-stems mostly 3-5 cm long, 2-3 cm wide; petioles 0.1-5.0 mm long; blades pinnately dissected, the divisions linear, filiform, mostly



1-2 cm long. Heads 5-40, arranged in terminal stiff open cymes, the ultimate peduncles mostly 2-6 cm long (ignoring the much-reduced bracteoles). Involucres campanulate, 6-7 mm high, 6-7 mm wide (pressed), the bracts ca. 21, lanceolate, glabrous, the apices usually with dark blotches and pubescent tufts. Ray florets 8-13, the ligules yellow, 6-10 mm long, 1.5-2.0 mm wide. Ray florets numerous (50+), the corollas yellow, ca. 5 mm long, the tube ca. 2.5 mm long, gradually merging into the narrowly funnellform throat, the lobes ca. 0.5 mm long. Achenes columnar, 3-4 mm long, densely pubescent with white appressed hairs, the pappus of numerous white bristles 4-5 mm long. Chromosome number, $n=20$ pairs (from holotype).

ADDITIONAL SPECIMEN EXAMINED: MEXICO. Nuevo León: Mpio. Galeana, Palmar, 11 Jun 1981, *Hinton et al. 18285* (TEX).

This taxon is apparently largely confined to gypseous soils. It is clearly related to *Senecio flaccidus*, but is readily distinguished from the latter by its stiffly erect annual habit, simple glabrous stems with stiffly ascending secondary branching and glabrous leaves. It superficially resembles *S. flaccidus* var. *monoensis* (E. Greene) B. Turner & T. Barkley and the paratype was provisionally annotated as this taxon by Ted Barkley in 1983.

Senecio powellii occurs in areas unoccupied by *S. flaccidus* and is unlikely to be construed as either populational forms or individuals, of the latter. Like *S. claryae* it appears to have persisted as a local edaphic speciate from a once more widespread *S. flaccidus*. The latter taxon is represented today by southern populations occurring in xeric habitats from central Veracruz, México northwards to central Durango, and by a group of more northern populations occurring from northern Coahuila westwards to Baja California and hence northward to the state of Washington in the U.S.A. The distribution of members of the *Suffruticosi* species-complex for México is shown in Figure 1.

It is a pleasure to name this distinct species for my esteemed colleague A.M. Powell, currently Professor of Biology, Sul Ross State University, Alpine, Texas, who accompanied me on the trip where the holotype was collected, and who counted its chromosomes. His many contributions to the field of synanthology are well known, but his interest in gypseous endemics is especially noteworthy (Powell & Powell 1977; Turner & Powell 1979).

ACKNOWLEDGMENTS

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